

COLUMBIA COUNTY ADOPT-A-STREAM NEWSLETTER No. 55 March 31, 2008

Drainage Basin Advisory Council Receives Mullins Pond Report; Erosion Case Heard

On the second meeting of the **Drainage Basin Advisory Council**, only four voting members were present: the three officers plus one other. **Sam Booher** was also present as a visitor, as were staff.

A review of the progress at **Mullins Pond** was given by Jac Palmer. The project at the pond is to improve its ability to retain stormwaters from those of a “4-year flood” to a “5-year flood”. We would like to know how we can translate such expressions into amounts of rainfall in given periods of days or hours...at least for Mullins site.

The **Wynngate Tributary** Capital Improvement Projects was discussed. This watercourse feeds under The Pass and into **Reed Creek** just upstream of **Reed Creek Park**. Efforts include bank stabilization and even culvert replacement. Stabilization itself can involve, it appears, providing a concrete “extenders” wall to each bank from the culvert.

An egregious case of erosion, exposing a sewer manhole adjacent to **Jones Creek at Fury’s Ferry Road**, was addressed without resolution as to what to do. Before and after photos (*right*) show the loss of perhaps 10 tons of soil in less than two weeks, following three inches of rain in that area March 4-7.

Between October and December of 2007 the sloped grounds above that site were mowed right to the bank edges, in violation of the state rule that 25 feet of vegetation be left for protection. Water levels appeared to have risen almost 6 feet in that time, as flotsam at such a level was noted in tree branches overhanging the creek. Based on the Wynngate project cost estimates, a single “extender” wall to the bank could cost under \$10,000. Clearly needed are stringent mowing guidelines and buffer plants; rock barriers (proposed by a local geologist who uses them in his exploratory work for an oil company) could be placed to limit mowing.

Readers: please look for stream sites where water lines cross, to see if anti-erosional safeguards are needed.

The next meeting of the Council is scheduled for 3 PM on the third Thursday of April—the later week to avoid Masters. At that meeting (1) all ongoing stormwater projects will be identified and perhaps “graded” with respect to progress, (2) **Charles Phillips** (our county extension agent) is expected to describe an environmental program for which he wishes the Council’s cooperation, (3) some educational approach for schools will be reviewed, and (4) some county newsletter notices—particularly with respect to description of BMPs, will be considered for publication.

Stream Cleanup a New Record

Thanks to the volunteer zeal of some of our own AAS stalwarts, but also to that of many **Wal-Mart** employees, over **650 pounds of trash** were picked up at **Euchee Creek** and Washington and Columbia Roads, **Jones Creek** at Fury’s Ferry Road, **Reed Creek** at Dowling Drive, and a tributary of Euchee Creek in a subdivision near Mt. Olive Baptist. At the Dowling Drive site **Sam Booher**, leading his intrepid and muscular group, managed to retrieve over 200 pounds from the stream and grounds, including a shopping cart, a bicycle, and a lawnmower! Besides Sam, **Rebekah Ivey**, **Ayman Fadel**, and **John Graham** participated. **Joe Wiseman** was an unneeded back-up.



Jones Creek and Fury’s Ferry Road
Erosion Site March 8, 2008



Erosion Site Exposing Sewer Manhole
Same Site, March 22, 2008

Move of Stormwater Division Facilities Planned

To follow up on rumors about a move of the facilities on which we AAS volunteers rely so heavily, your editor asked Bill Clayton, Water Utility head, to respond:

“Water maintenance, Conveyance and Stormwater will be the first to move to the new complex [at 209 Chamblin Road]. The rest of us will follow at a later date as yet to be determined. The lab will be moving and I am considering moving it to the Little River Site WPCP when the next expansion of the facility occurs in 2010-2012.”

The Chamblin Road address involves two adjacent parcels at N 33.51047 West 82.23928. Questions: Can water bill payments still be made in person near the present site? Is the new location nearer to the center of growth in the county? Won't the new water lab at Little River WPCP be more distant from the growth center, and for delivery of test samples? The Water Quality section of the Stormwater Division, including the water lab, is headed up by Margaret Doss.

Bacterial Resistance Studies Interrupted

Augusta State University microbiologist **Jason Andrus** is now expected to leave for another institution out of state by the end of June; new bacterial investigations from him cannot be expected. We are still hoping for the previously-garnered data.

At the same time we are looking at a bacterial sampling system proposed by GA AAS for acquisition and use by AAS volunteers. Whether it could be adapted to providing for resistance studies is unlikely. Perhaps, with the expansion of stormwater responsibilities (*see article above*), this task will be considered and developed.

Garrett Weiss of **Richmond County** is continuing his own 3-year study of bacterial resistance. He expects to publish results at the end of the study. Hopefully some guidance for us will be available.

Columbia County Adopt-a-Stream Mentioned in April Issue Columbia County Magazine

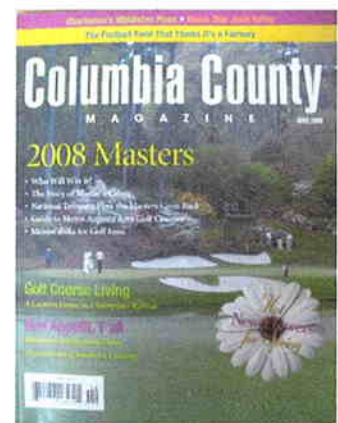
To save you search time, look on page 30 of the April 2008 issue of **Columbia County Magazine** for mention of our favorite volunteer activity! Its three photos feature the **Sprankle family (Ray, Andrew, Jessica, Julie)**, taken some time in 2007; those attending the January 5 chemistry workshop; and a creek scene with



Jones Creek Bank Erosion Across a Green in Jones Creek Golf Course in March:
A Case of Needed Buffers

Robin Reardon, Wes Mikec, and John Graham. Wes was a student who, with his mother, **Hilary**, attended as part of a project requirement. Both took the test and passed. They are being certified with the hope that they will volunteer from time to time.

We hope that, through announcements about wildflower classes being offered during March, April, and early May, as well as announcements about the recent stream cleanup, more Adopt-a-Stream volunteers will be found. We commend the **Columbia County News-Times** for its repeated wildflower class announcements and upcoming Masters Week article on the same subject. Local government has provided means by which we can develop a greater appreciation for, and protection of, the natural assets of Columbia County.



ASSIGNMENTS

Letters following names indicate certifications of participants, as presently known. Some were certified in December/January/February, and some in June/July/August of 2007: g or v=Getting Started (Update/Orientation, with introduction to visual surveys and watershed studies); c=chemical/physical; b=biological (macros); t=trainer. Each number following the letter is the month of certification in that skill. In some cases persons who didn't take the Getting Started workshop may have gotten some of the visual survey training elsewhere (as at the Educational Forest in Richmond County with **Frank Carl**) or at **Phinizy Swamp Nature Center**.

Column B identifies the type of stream bottom – and hence the type of collection nets used for macros: “R” for rocky bottoms; “S” for sandy or silty bottoms. Some bottoms are a mix (“RS”). With low levels in our streams, seines may be introduced more often, at emerging riffle points. Letters in the **K** column identify by letter the particular shallow-water chemical kits used and retained. Nitrate and phosphate kits are identified by letter in the **T** column. Letters in the **C** column identify conductivity units. Known/suspected visit dates are given in monthly columns. **Gloves should be used for all operations, but especially nitrate & DO.**

Request and record averaged rainfall data 0-24 hrs, 24-48 hrs, 48-72 hrs, prior from John Graham before completing reports. New forms for such data (visual, chemical, biological) will be provided as needed, but the data can be noted on the older forms anyway.

Use the “buddy” system when getting DO, pH, temperatures. One buddy should be certified. Especially verify titration readings.

Stream	Team Leaders and Assistors	B	K	T	C	Leader Phone	Usual Day/Time	Mar	Apr	May	Jun
Betty's Branch Site 3	Judy Gordon (vc1b8b2) Dennis McClendon (c1b3) Occ: Terry Shipe, C. Niemeyer, D. Lewis	R	E	B	F	650-8314	Last week weekday	C 26	CV 22-24	CB 27-29	C 24-26
Euchee Ck 4	Michael (cb1) and Robin (c1) Reardon Jim (c) and Anna (c) Mayfield Cody Coulson (and father, brother)	S	M	B	F	627-5226	Usually 3 rd Sat	C 29	CV 19	CB 17	C 21
Mill Branch 1	Zuliana Salerno (c4b3), Maria Mike Piper, John Graham (t)	S R	C	C	B	650-72	2 nd Sat	C 8	CV 12	CB 10	C 14
Jones Creek Site 2B	Rebekah Ivey (c1b2, beginning April) John Graham (t), Loren Waldo (cb) Dwight/Dillon/ Garrett Jones (May)	S R	C	C	B	650-7634	4 th Sat	C 22	CV 26	CB 24	C 28
Reed Creek Site 1A	John Graham (April, May); Michelle Zupan (c1b2), leader beginning June; Ayman Fadel assisting Macros: Glenn/Evan Krenz? (May)	R S	G	A	E	829-3093 cell	2 nd Sat	C 15	CV 19	CB 17	C 21
**Reed Creek Site	John Graham (t), temporary leader Macros: Sam Booher (vbc)?	R S	G	A	E	868-0296	4 th Mon-days	C 24?	CV 21	CB 19	C 16
Reed Creek Site 4	Ray Sprankle (c1b2) Andrew Sprankle (c1b2) Michelle Zupan (c1b2) to May	R S	A	A	C	855-6248	3 rd Sat	C 15	CV 19	CB 17	C 21
Marshall Ck Site 1	Sam Booher (vbc) or John Graham (t)	S R	B	A	E	854-9195	4 th Tue-Thu	C 26?	CV 22-24	CB 28	C 25

** A new site near Washington Commons is being considered.

Introducing... On our right, Dear Reader, are photos of two of our newer volunteers. **Ayman Fadel**, a 1984 graduate of Evans HS and a BA in political science from the University of Virginia, is now the owner of a company developing software for nursing homes. He has been most helpful at **Reed Creek Site 1A**, adjacent to Lakeside MS. **Rebekah Ivey**, with a BA in biology and a bent on teaching, is being asked to lead at the **Jones Creek Site 2B** this month. She did an excellent job at **Jones Creek Cleanup Day** with daughter, **Danielle**.



MARCH Rainfall

Note: Use average below for Columbia County!

2007 monthly rainfalls. May is the driest of the first 8 months. Normally November is the year's driest. This March's average is given below.

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Rain Total	4.215	3.178	5.082	1.978	0.651	5.375	4.401	2.377

February was wetter than last month. Recordings were seen as more in error as participants in some cases miscounted look-backs on their remotes. Rains in green were moved forward one day; rains in blue were moved back one day. Recordings shown in red were patently in gross error and therefore discounted. Days in blue are suitable as "wet" bacterial sample collection days. Days in red are suitable as "dry" bacterial sample collection days-- provided samples are collected prior to any rain reported on such days as show rain over 0.20"; these latter are marked in green. A "dry" collection day has been preceded by at least 72 hours of rain less than 0.1". A "wet" collection day has been preceded by a least 72 hours of no rain, followed up by at least 0.1" of rain. Note that these limits are applied particularly for stream walks locally--not 0.2" for bacterial samples under EPD rules. An "e", "a", or hat "A" before a reading indicates an apportioned estimate of an accurately-totaled sample.

NOTE: Air pressures at 10 AM for Saturdays, the usual sampling days, are provided. They are averages of the Petersburg and West Lynne sites. Station hours are 00-24 or 07-07 (to prior day).

Day (2006)	Air Pres- sure 10 AM	J. Graham Bridle- wood SD BW	Bob/Sally Fisher WestLake RF	Crs. Capps Wood- stock WS	Jim Mayfield The Pass TP	J. Gordon Clanton Woods CW	Joe Wise- man Wash Commons WC	Richard Mann Tyler Dr. TD	Zuliana Salerno ZS	Wellington SD Evans WT	Junction Routes 232/383 JN	West Lynne WL	Old Peters- burg Rd OP	Reed Creek Tr. Plant RCI	Little River Tr. Plant L R	Crawford Creek Tr. Plant C C	Point Comfort Tr. Plant P C	Columbia County (Average 12-14)	Harlem Pumpkin Center HM	Clark's Hill Tr. Plant CH	Daniel Field	Bush Field
NOV		0.16	0.25	0.16		0.30	0.36	0.17		0.26	0.34	0.32	0.30	0.24		0.20	0.32	0.256	0.35	0.98	0.41	0.41
DEC		5.16	6.00	5.47		6.30	6.06	4.57	7.20	N/A	6.25	7.38	5.60	6.14	6.75	5.59		6.504	6.02	5.67	7.09	7.51
JAN		2.85	3.32	"		3.55	4.14	3.09	2.95	3.22	2.84	2.93	3.02	3.33	5.1	3.17	3.40	3.263	3.61	3.68	3.29	3.19
FEB		4.09	4.32	4.12	4.56	5.05	4.07	3.94	4.48	3.61	4.93	4.29	4.34	4.48	N/A	4.89	N/A		4.79	4.83	4.50	3.84
Hours-->	00-24	**			00-24	22-22	00-24	00-24	00-24	00-24	00-24	00-24	00-24	00-24	00-24	00-24	07-07		00-24	00-24	00-24	00-24
OVERALL											N/C	N/A		?		N/A						
Mar 1	30.32																				Trace	Trace
Mar 2																						
Mar 3																						
Mar 4		2.17	0.91	1.42	1.02	1.55	1.46	2.05	2.09	2.12	0.56		1.14	1.06	2.8		1.12	1.608	1.52	1.14	0.80	0.88
Mar 5						0.05					0.13							0.004	0.09			
Mar 6											0.07											
Mar 7		0.83	0.94	0.94	0.91	1.05	1.02	1.16	0.94	0.96	0.97		0.87	0	1.1		0.98	0.975	0.86	0.83	0.78	2.03
Mar 8	29.86												0.01					0.001	0.01	0.01	0.01	0.01
Mar 9					0.04													0.003				
Mar 10																						
Mar 11																						
Mar 12																						
Mar 13																						
Mar 14		Trace	0.04		0.08		0.04	Trace	0.04		0.07		0.06	0			0.09	0.029	0.06		0.05	Trace
Mar 15	29.84	0.47	0.87	0.65	0.79	0.75	0.67	0.08	0.43	0.57	0.61		0.76	0.71	0.5		0.55	0.600	0.28	0.63	0.35	0.18
Mar 16			0.04					0.04			0.01			0				0.007				
Mar 17																						
Mar 18																						
Mar 19		0.47	0.47	0.43	0.51	0.80	0.62	0.35	0.47	0	0.54		0.49	0	0.6		0.49	0.518	0.51	0.47	0.59	0.56
Mar 20																						
Mar 21																						
Mar 22	30.08																					
Mar 23-27																						
Mar 28																						
Mar 29	30.21	0.32	0.16	0.67	0.12	0.20	0.12	0.14	0.16	0.70	0.32		0.20	0	0.5		0.45	0.312	0.44	0.35	0.23	1.08
Mar 30		0.37	0.24	0.31	0.31	0.55	0.37	0.31	0.55	0.32	0.29		0.30	0	0.3		0.08	0.334	0.54	0.59	0.36	0.46
Mar 31						Trace					0.29										Trace	
MAR		4.63	3.67	4.42	3.78	4.95	4.30	4.13	4.68	4.67	3.86	N/A	3.83	N/A	5.8	N/A	3.76	4.391	4.31	4.01	3.17	5.20

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